

Attorney's Docket:  
99P7740US

PATENT APPLICATION  
09/378,108

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### REMARKS

This Application has been carefully reviewed in light of the Office Action mailed November 3, 2004. Applicants appreciate the Examiner's consideration of the Application. Claims 1-21 are pending in the application. Claims 1-21 stand rejected. Claims 1, 7, 15, and 21 have been amended to clarify, more particularly point out, and more distinctly claim inventive concepts previously present in these claims. Certain amendments do not narrow the scope of the claims, and certain amendments are not required for patentability. Applicants respectfully submit that no new matter has been added by the amendments to the claims. In order to advance prosecution of this Application, Applicants have responded to each notation by the Examiner. Applicants respectfully request reconsideration and favorable action in this case.

### Claim Objected

Claim 7 is amended in accordance with the requirement of the Examiner to correct informalities. Applicants thank the Examiner for pointing out the informalities. Applicants respectfully request that the Examiner remove the objection to the claim.

### Rejections Under 35 U.S.C. § 103

The Examiner rejects Claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,848,095 to Deutsch et al. ("*Deutsch*") and "A Spectrum Efficient Technique for Cordless Telephone Access to ISDN" by Kashorda et al. ("*Kashorda*"). Applicants respectfully traverse all rejections and assertions therein.

Applicants have amended Claim 1 in response to suggestions made by the Examiner in the Office Action mailed January 30, 2004 ("Office Action 01/30/04") and in the Office Action mailed November 3, 2004 ("Office Action 11/03/04"). The Examiner states:

... It is not clear from the *Gendel* reference that F2 is selected from a different segment, instead the references in combination teach two separate frequencies that may reside on either the same segment or a different segment, however, both of these frequencies still maintain "spectral separation" from one another using a reasonable but broad interpretation. Should applicant include this further limitation then the examiner would remove both rejections ...

(Office Action 01/30/04, 3, paragraph 2, emphasis in original.)

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The Examiner also states:

Again, examiner would like to further point out that it is not clear from the claims that "F1" and "F2" are in separate *subsets* for the *same* frame (see applicant's figure 4) with respect to applicant's step of selecting a unique channel frequency for at least one other channel that has spectral separation, see applicant's specification at page 8, lines 11-19. **This concept is not taught by the references cited in the rejections and is not recited in the claims.**

(Office Action 11/03/04, page 4, paragraph 1, bold emphasis added.) Applicants thank the Examiner for the suggestions.

Applicants respectfully submit that the combination of *Deutsch* and *Kashorda* as proposed by the Examiner fails to disclose, teach, or suggest elements specifically recited in Applicants' amended claims. For example, the *Deutsch-Kashorda* combination proposed by the Examiner fails to disclose, teach, or suggest the following elements recited in independent Claim 1, as amended:

establish a plurality of individual communication channels of a frame,  
... each communication channel associated with a frequency of a frequency  
subset of a plurality of frequency subsets, a frequency band divided to yield  
the plurality of frequency subsets;

select a first channel frequency from a first frequency subset of the  
plurality of frequency subsets ... ; and

select a unique channel frequency for at least one other channel ...  
from a second frequency subset of the plurality of frequency subsets, the  
second frequency subset different from the first frequency subset.

Support for this amendment may be found in the Specification at, for example, page 10, lines 7-11, and page 11, lines 11-16.

*Deutsch* discloses a system that selects a frequency for a channel of a group from a table of randomized frequencies. (Column 6, lines 1-67.) According to *Deutsch*:

Assuming that all of the channels in group B are functioning properly, then the base and the handset will hop from B1 to B2 to B3 to B4 to B5 etc. to B50 and then recycle starting at B1, B2, etc.

In the situation where a time slot, for example time slot 3, of the B group is bad, not functioning properly or having interference on the channel, the system will at the time slot 3 switch to use the frequency of C3. In such a situation, the sequence would be B1, B2, C3, B4, B5. Again, assuming that a channel such as B49 is determined to be bad, then the system would switch to C49 such that the sequence would be B1, B2, C3, B4, B5, etc., B48, C49, B50.

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(Column 6, lines 1-12.)

According to *Deutsch*, the table of randomized frequencies may be generated according to the following procedure:

Procedure:

- 1) Divide the channels (1-200) into 10 subbands  
 $SB_1 = 1-20$   $SB_2 = 21-40$  ...  $SB_{10} = 181-200$
- 2) Create random sequence of subbands  
e.g. 1, 4, 10, 7, 3, 6, 9, 5, 2, 8.
- 3) Recursively position the random sequence through 50 channels to form a group as shown in FIG. 6.
- 4) Advance one place in random sequence and form next group as shown in FIG. 7.
- 5) Repeat step 4 for remaining groups.
- 6) 50 subband sequences should be created and, for each subband within each group, randomly select a distinct (not previously assigned) channel within that subband and assign that channel to a position in the group sequence until all 200 channels are distributed throughout the four channel groups.

(Column 6, lines 53-67.) That is, the table of *Deutsch* is generated by grouping channel frequencies of a frequency range into a number of subbands. For each group, a random sequence of subbands is created. A distinct channel frequency is selected from each subband of the random sequence of subbands in order to generate a sequence of random channel frequencies for each group.

*Deutsch*, however, fails to disclose, teach, or suggest selecting a first frequency for a channel from a first frequency subset and selecting a second frequency for another channel from a second frequency subset distinct from the first frequency subset, where each channel is associated with a frequency of a frequency subset of a plurality of frequency subsets of a frequency band. Accordingly, *Deutsch* fails to disclose, teach, or suggest "establish a plurality of individual communication channels of a frame, ... each communication channel associated with a frequency of a frequency subset of a plurality of frequency subsets, a frequency band divided to yield the plurality of frequency subsets," "select a first channel frequency from a first frequency subset of the plurality of frequency subsets" and "select a unique channel frequency for at least one other channel ... from a second frequency subset of the plurality of frequency subsets, the second frequency subset different from the first frequency subset," as recited in Claim 1.

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Additionally, Applicants were unable to locate any passage in *Kashorda* that teaches or suggest the claimed limitation. Accordingly, Applicants respectfully submit that Claim 1 is allowable.

The dependent claims are allowable based on their dependence on the independent claim and further because they recite numerous additional patentable distinctions over the references of the rejection. Because Applicants believe they have amply demonstrated the allowability of the independent claim over the references of the rejection, and to avoid burdening the record, Applicants have not provided detailed remarks concerning these dependent claims. Applicants, however, remain ready to provide such remarks if it becomes appropriate to do so. Accordingly, Applicants respectfully submit that dependent Claims 2-6 are allowable.

Independent Claims 7, 15, and 21 recite certain limitations substantially similar to those recited in independent Claim 1. Accordingly, for at least the same reasons, Applicants also respectfully request reconsideration and allowance of independent Claims 7 and 15, together with their dependent claims, and independent Claim 21.

The Examiner rejects Claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,115,407 to Gendel, et al. ("*Gendel*") and *Kashorda*. Applicants respectfully traverse all rejections and assertions therein.

Applicants respectfully submit that the combination of *Gendel* and *Kashorda* as proposed by the Examiner fails to disclose, teach, or suggest elements specifically recited in Applicants' claims. For example, the *Gendel-Kashorda* combination proposed by the Examiner fails to disclose, teach, or suggest the above elements recited in independent Claim 1, as amended.

*Gendel* merely discloses hopping through a series of pre-selected frequencies of a used segment, and replacing the used segment with an unused segment if interference is detected. (Column 7, lines 14-31.) A hopping frequency may be randomly selected from a used segment or be a predetermined frequency from the used segment. (Column 7, lines 18-20.)

*Gendel*, however, fails to disclose, teach, or suggest selecting a first frequency for a channel from a first frequency subset and selecting a second frequency for another channel

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from a second frequency subset distinct from the first frequency subset, where each channel is associated with a frequency of a frequency subset of a plurality of frequency subsets of a frequency band. Accordingly, *Gendel* fails to disclose, teach, or suggest "establish a plurality of individual communication channels of a frame, ... each communication channel associated with a frequency of a frequency subset of a plurality of frequency subsets, a frequency band divided to yield the plurality of frequency subsets," "select a first channel frequency from a first frequency subset of the plurality of frequency subsets" and "select a unique channel frequency for at least one other channel ... from a second frequency subset of the plurality of frequency subsets, the second frequency subset different from the first frequency subset," as recited in Claim 1.

Accordingly, Applicants respectfully submit that Claim 1 is allowable.

The dependent claims are allowable based on their dependence on the independent claim and further because they recite numerous additional patentable distinctions over the references of the rejection. Because Applicants believe they have amply demonstrated the allowability of the independent claim over the references of the rejection, and to avoid burdening the record, Applicants have not provided detailed remarks concerning these dependent claims. Applicants, however, remain ready to provide such remarks if it becomes appropriate to do so. Accordingly, Applicants respectfully submit that dependent Claims 2-6 are allowable.

Independent Claims 7, 15, and 21 recite certain limitations substantially similar to those recited in independent Claim 1. Accordingly, for at least the same reasons, Applicants also respectfully request reconsideration and allowance of independent Claims 7 and 15, together with their dependent claims, and independent Claim 21.

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**CONCLUSION**

For the foregoing reasons and for other reasons clearly apparent, Applicants respectfully request reconsideration and full allowance of all pending claims.

If the Examiner feels that a telephone conference or an interview would advance prosecution of this application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

Applicants do not believe that any fees are due. However, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 19-2179 of Siemens Corporation.

Date: Feb. 3, 2005

Respectfully requested,

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